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| APPLICATION NO.                           | FILING DATE       | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------------|----------------------|---------------------|------------------|
| 10/771,391                                | 02/05/2004        | Kozo Shimizu         | 042080              | 3325             |
| 38834                                     | 7590 01/19/2006   |                      | EXAMINER            |                  |
| WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP |                   |                      | GURLEY, LYNNE ANN   |                  |
| 1250 CONNE                                | CTICUT AVENUE, NW |                      |                     |                  |
| SUITE 700                                 |                   |                      | ART UNIT            | PAPER NUMBER     |
| WASHINGTON, DC 20036                      |                   |                      | 2812                |                  |

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Advisory Action

Application No. Applicant(s) 10/771,391 SHIMIZU ET AL. Examiner **Art Unit** 2812 Lynne A. Gurley

Before the Filing of an Appeal Brief --The MAILING DATE of this communication appears on the cover sheet with the correspondence address --THE REPLY FILED 03 January 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. 1. X The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods: a) The period for reply expires <u>3</u> months from the mailing date of the final rejection. b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f). Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). NOTICE OF APPEAL 2. The Notice of Appeal was filed on \_\_\_\_ \_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a). **AMENDMENTS** 3. The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because (a) They raise new issues that would require further consideration and/or search (see NOTE below); (b) They raise the issue of new matter (see NOTE below); (c) They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or (d) They present additional claims without canceling a corresponding number of finally rejected claims. NOTE: . (See 37 CFR 1.116 and 41.33(a)). 4. The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324). 5. Applicant's reply has overcome the following rejection(s): 6. Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s). 7. 🛛 For purposes of appeal, the proposed amendment(s): a) 🗌 will not be entered, or b) 🖾 will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended. The status of the claim(s) is (or will be) as follows: Claim(s) allowed: Claim(s) objected to: Claim(s) rejected: 1,2 and 4-9. Claim(s) withdrawn from consideration: \_\_\_\_\_. AFFIDAVIT OR OTHER EVIDENCE 8. The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e). 9. The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1). 10. The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached. REQUEST FOR RECONSIDERATION/OTHER 11. \times The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet. 12. Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). 13. 

☐ Other: Also see PTO Form 892 attached. Lynne A. Bush, Lynne A. Gurley Primary Patent Examiner Art Unit: 2812

Continuation of 11. does NOT place the application in condition for allowance because: claims 1-2 and 4-9 may still be rejected by Nishiguchi (US 5,461,261 in view of Nakata (US 2004/0079194) for the reasons of record and for additional reasons. To clarify the previous rejection using Nishiguchi under 35 USC 102, Nishiguchi shows the use of Sn and In as solder materials used to connect devices together and to mount devices on a substrate. Nakata teaches the addition of Bi to Sn also in a solder composition and as a conductive filler [0003]. The addition of the Bi to the Sn provides a relaiable contact, especially with respect to heat resistance in subsequent steps and testing. Conventionally, Sn/Pb alloys were made. However, this alloy has had problems maintaining its integrity at higher temperatures. So, the addition of Bi to Sn has motivation in its reliability. Bi is also the same metal Applicant uses for the first metal and therefore, has the characteristic in which a volume thereof is increased when it is heated to be molten and coagulated. Sn is one of Applicant's second metal of choice. It would have been obvious to one of ordinary skill in the art to have formed an alloy of Bi and Sn for the reasons taught in Nakata and to have formed a multilayered solder bump of these metals.